

Monday, March 10, 2024 (IMDEA Nutrihealth)

Current Methodologies in Precision Nutrition and Nutriomics (ISNN Satellite)

15:00-15:25 Current methods and applications of HPLC mass metabolomics in precision nutrition. *Alberto Valdés.* Institute of Food Science Research – Spanish National Research Council (CIAL-CSIC).

15:25-15:50 Current methods and applications of NMR metabolomics in precision nutrition. *Nuria Amigó.* Biosfer Testlab.

15:50-16:00 QUESTIONS

16:00-16:25 Current methods and applications of exome analyses in precision nutrition. *Ricardo Ramos.* IMDEA Nutrihealth.

16:25-16:50 Current methods and applications of nutrigenetics in precision nutrition. *Marta Alonso.* ADNTRO Genetics.

16:50-17:00 QUESTIONS

17:00-17:25 Research in pediatric obesity. *Begoña de Cuevillas.* IMDEA Nutrihealth.

17:25-17:50 Current methods and applications of cell cultures in precision nutrition. *Alberto Díaz-Ruíz* and *IZASA.* IMDEA Nutrihealth/IZASA.

17:50-18:00 QUESTIONS

18:00-18:30 BREAK

18:30-18:55 Current methods and applications of the metagenomics in precision nutrition (I). *Laura J. Marcos.* IMDEA Nutrihealth.

18:55-19:20 Current methods and applications of artificial intelligence in precision nutrition. *Mario Astigarraga.* IMDEA Nutrihealth.

19:20-19:30 QUESTIONS

19:30-19:55 Multiomics screening. *Metehan Cifdaloz.* Novogene Europe.

19:55-20:20 Epigenetic signatures methodologies. *Felipe Javier Chaves Martínez.* SeqPlexing S.L.

20:20-20:30 QUESTIONS

Tuesday, March 11, 2024 (morning)

CTPIOD / UPV (Carlos Santamaría Building)

09:00-09:30 Immunomics in nutrition. *Moisés Laparra*. IMDEA Nutrihealth/Universidad Internacional de Valencia (VIU).

09:30-10:00 Current methods and applications of Seahorse technology in precision nutrition. *María Ikonomopoulou*. IMDEA Nutrihealth.

10:00-10:30 Breath as a Source of Non-Invasive Biomarkers for Precision Medicine. *Ben Constant*. Owlstone Medical Ltd.

10:30-11:00 COFFEE BREAK

11:00-14:20 Brief oral presentations (annexed at the end)

14:20-15:00 LUNCH BREAK

Tuesday, March 11, 2024 (afternoon)

UPV Miramar + RINN22 + NUGO (Online)

15:00-15:25 Epigenetic clocks and dietary lifestyle. *Rosita Gabbianelli*. Università degli Studi di Camerino, Italy (ISNN).

15:25-15:50 Precision nutrition in obesity: the role of metabotypes. *Ellen Blaak*. Maastricht University, Netherlands (ISNN).

15:50-16:00 QUESTIONS

16:00-16:25 Chrononutrition for precision feeding. *Bárbara Vizmanos*. University of Guadalajara, Mexico (RINN22).

16:25-16:50 Precision nutrition for women's health. *Karina dos Santos*. Federal University of the State of Rio de Janeiro, Brazil (RINN22).

16:50-17:00 QUESTIONS

17:00-17:25 Implications of epigenetics for human obesity. *Omar Ramos*. Autonomous University of Baja California, Mexico (RINN22).

17:25-17:50 Maternal nutrition programming of the offspring. *Ana Laura de la Garza*. Autonomous University of Nuevo León, Mexico (RINN22).

17:50-18:00 QUESTIONS

18:00-18:30 BREAK

18:30-18:55 Handling the complexity of (poly)phenol metabolism to improve cardiometabolic health. *Pedro Mena*. University of Parma, Italy.

18:55-19:20 Personalized nutrition in severe hypertriglyceridemia. *José L. Santos*. Pontifical Catholic University of Chile, Chile (RINN22).

19:20-19:30 QUESTIONS

19:30-19:55 Current methods and applications of the metagenomics in precision nutrition (II). *Amanda Cuevas*. IMDEA Nutrihealth.

19:55-20:20 Plant microRNAs as regulators of gene expression. *Silvia Lorente.* University of Zaragoza, Spain (RINN22 + CTPIOD).

20:20-20:30 QUESTIONS

Wednesday, March 12, 2024 (morning)

CTPIOD / UPV (Carlos Santamaría Building)

09:00-09:30 The history of a resveratrol dimer, namely ϵ -viniferin: From the plant to its biological activities useful for human health. *Arnaud Courtois.* University of Bordeaux, France (CTPIOD).

09:30-10:40 Session 1. Natural extracts and bioactive compounds.

Chair: *Arnaud Courtois*

Javier Cano-Lou, Víctor López. **Apple residues for the extraction of polyphenols with applications for metabolic disorders.** Universidad San Jorge, Spain.

Iker Gómez García, María Puy Portillo. **Effects of *Opuntia* extracts on inflammation murine model diet-induced obesity and liver steatosis.** University of the Basque Country, Spain.

Irene Besné Eseverri, María Puy Portillo. **Effect of *Opuntia ficus-indica* var. *colorada* pulp and *Opuntia stricta* var. *dillenii* peel extracts in the hepatic lipid metabolism of diet-induced MAFLD in rats.** University of the Basque Country, Spain.

Gemma Casado, Víctor López. **African traditional medicinal plants used in the Republic of Benin for the treatment of diabetes: in vitro validation and potential mechanisms.** Universidad San Jorge, Spain.

10:40-11:15 Session 2. Bioactive peptides and proteins.

Chair: *Victor López*

Maialen Uriz-Martínez, Diana Ansorena, Iciar Astiasaran, Paula Aranaz. **Functional evaluation of pea and fava bean protein hydrolysates in *Caenorhabditis elegans* model.** University of Navarra, Spain.

Oria Soler Boronat, Montse Pinent. **Alternative protein sources on intestinal health.** Rovira I Virgili University, Spain.

11:15-11:40 COFFEE BREAK

11:40-12:15 Session 3. Dietary strategies.

Chair: *Anne Bouloumié*

Inmaculada Sansano-Hidalgo, Diego Fernández-Lázaro, Enrique Roche. **Modulation of body fat mass by a light ketogenic diet supplemented with L-carnitine.** Miguel Hernández University, Spain.

Sayed Hesamoddin, Jesús De la Osada. **Mediterranean Diet Benefits in MAFLD.** University of Zaragoza, Spain.

12:15-13:25 Session 4. Obesity: models and mechanisms.

Chair: *María Puy Portillo*

Juline Marjollet, Anne Bouloumié. **Adaptation to nutritional state according to sex and hormonal status in mice.** INSERM, Toulouse, France.

Victor Yassuda, Ana Luísa Coelho, Andrés Méndez-Lucas. **GDF15 Dynamics Following Metabolic Surgery: Implications for Weight Loss and Liver Function.** University of Algarve, Portugal / University of Barcelona, IDIBELL, Spain.

Leopold Devineaux, Anne Bouloumié. 3D Model of human adipose lobule revealing the supporting role of progenitors on adipocyte functionality in addition to adipogenesis. INSERM, Toulouse, France.

Jaime Alonso-Allende, Fermin Milagro, Paula Aranaz. Integrating Metagenomics and Metabolomics to Uncover Microbial-Metabolic Interactions in Human Metabolic Health: Insights from the Obekit Intervention Study. University of Navarra, Spain.

13:25-13:55 Polyphenols intake implications on health: role of biological rhythms. *Anna Arola.* University Rovira y Virgili, Spain (CTPIOD).

14:00 Concluding remarks and CTPIOD awards.

14:15-15:00 LUNCH BREAK

Wednesday, March 12, 2024 (afternoon)

UPV Miramar + RINN22 + NUGO (Online)

15:00-15:25 Fatty Acid Desaturases and Omega-3 Synthesis: Insights into the Functional Impacts of Genetic Variants. *David M. Mutch.* University of Guelph, Canada (ISNN).

15:25-15:50 Genetic epidemiology. *Louis Périusse.* Laval University, Canada (ISNN).

15:50-16:00 QUESTIONS

16:00-16:25 Lipidomic changes induced by arthritis and the effects of omega-3. *Frederic Capel.* University of Clermont-Auvergne, France (CTPIOD).

16:25-16:50 Nutrigenetics of cardiovascular disease/miRNomics in cardiovascular disease. *Maria Elizabeth Tejero.* National Institute of Genomic Medicine, Mexico (ISNN + CTPIOD).

16:50-17:00 QUESTIONS

17:00-17:25 Omics exploration of postprandial metabolism and cardiometabolic risk. *Sergio Polakof.* University of Clermont-Auvergne, France (NUGO).

17:25-17:50 Novel study designs and modeling approaches in human precision nutrition research. *Baukje De Roos.* University of Aberdeen, Scotland (NUGO).

17:50-18:00 QUESTIONS

18:00-18:30 BREAK

18:30-18:55 Transcriptomics applications in precision nutrition. *Alberto Dávalos.* IMDEA Nutrihealth, Spain (RINN22 + CIBEROBN).

18:55-19:20 Epigenetic applications in precision nutrition. *Lidia Daimiel.* IMDEA Nutrihealth, Spain (CIBEROBN).

19:20-19:30 QUESTIONS

19:30-19:55 Epigenetic Benefits and Mechanisms of Regular Physical Activity in Metabolic Disease Management. *Elisa María Barrón.* Universidad Autónoma de Sinaloa.

19:55-20:20 The interaction between genetic polymorphisms in FTO, MC4R, CLOCK, GHRS, GHRL, LEP, LEPR, RETN, and ADIPOQ genes with meal frequency on

anthropometric, metabolic and hormonal indicators: a randomized nutrigenetic trial with obese women. *Eliane Lopes Rosado*. Federal University of Rio de Janeiro

20:20-20:30 QUESTIONS

Note: English, virtual (online), time CET.

ANEXE

11:00-11:10 Post translational control of metabolism. *Cristina Ramírez.* IMDEA Nutrihealth.

11:10-11:20 Polyphenol metabotypes. *Cristiana Mignogna.* University of Parma.

11:20-11:30 Folic acid recommendations with genetics. *Victor de la O.* IMDEA Nutrihealth.

11:30-11:40 Cancer and nutrigenetics. *Camilla Horn Soares/Thais Steemburgo.* Federal University of Rio Grande do Sul, Brazil.

11:40-11:50 *Hermesdorff* (Martins). Brazil.

11:50-12:00 Nutritional scores and metabolic diseases. *Anael Mellado Negrete.* Tec de Monterrey, Mexico.

12:00-12:10 Food intake and gestational weight gain considering FTO polymorphisms in Brazilian pregnant women. *Katherine Bittencourt.* Federal University of the State of Rio de Janeiro, Brazil.

12:10-12:20 Relationship between intake of total lipids and saturated fatty acids and the composition of the intestinal microbiota in women with severe obesity. *Leysimar Siais.* Federal University of Rio de Janeiro, Brazil.

12:20-12:30 Precision Nutrition – Fruta tropical. *Alberto Ángel Martín.* Universidad de Santander - Colombia.

12:30-12:40 Dietary patterns in Brazil – CUME Study. *Jessica Bevenuto Mattar.* Brazil.

12:40-12:50 Gut microbiota and obesity. *Marta Silvestre.* Nova, Lisboa.

12:50-13:00 Polyphenols and inflammation. *López González (Astudillo).* Colombia.

13:00-13:10 Macronutrients needs in the Antarctic. *Milagros Elena Arguedas.* UNIFE Perú.

13:10-13:20 Genetic and sex differences in NAFDL. *Melissa de Jesús Vega Burgeño.* Universidad Autónoma de Sinaloa, México.

13:20-13:30 Is the Dieta de la Milpa an alternative dietary pattern for end-stage renal disease patients on hemodialysis? *Carolina Gabriela Plazas Guerrero.* Universidad Autónoma de Sinaloa, México.

13:30-13:40 Dyslipidemia and Lifestyle: A Nutrigenetic Approach. *Itzel Zamudio.* Universidad de Guadalajara, México.

13:40-13:50 Telomere length in patients with systemic lupus erythematosus in different nutritional statuses. *Beatriz García de Carballo.* USP Brazil.

13:50-14:00 Hipovitaminosis D in autoimmune diseases. *Bertha Campos López.* Universidad de Guadalajara, México.

14:00-14:10 Can dietary antioxidants and TNF- α genetic variants help control insulin in obesity? *Erika Sierra.* Universidad de Guadalajara, México.

14:10-14:20 Achieving Normoglycemia through Nutriomics. *Anusha Sunder.* Xcode, Life Sciences Pvt. Ltd, India.

14:20-14:30 Effects of Opuntia cacti extracts in obesity prevention. A comparison between epididymal and subcutaneous adipose tissues. *Iker Gómez García.* University of the Basque Country (UPV/EHU), Vitoria-Gasteiz, Spain.

14:30-14:40 Frequency of nutrigenetic variants predisposing to Cardiovascular diseases in the Bulgarian population. *Olga Antonova.* Medical University-Sofia, Bulgaria.